CARIBBEAN, CENTRAL AMERICA, AND MEXICO STATE OF THE CLIMATE AND RECENT EVOLUTION

Update prepared by the Climate Prediction Center / NCEP
12 October 2020

For more information, visit:
http://usregionalclimatecenter.noaa.gov/

OUTLINES

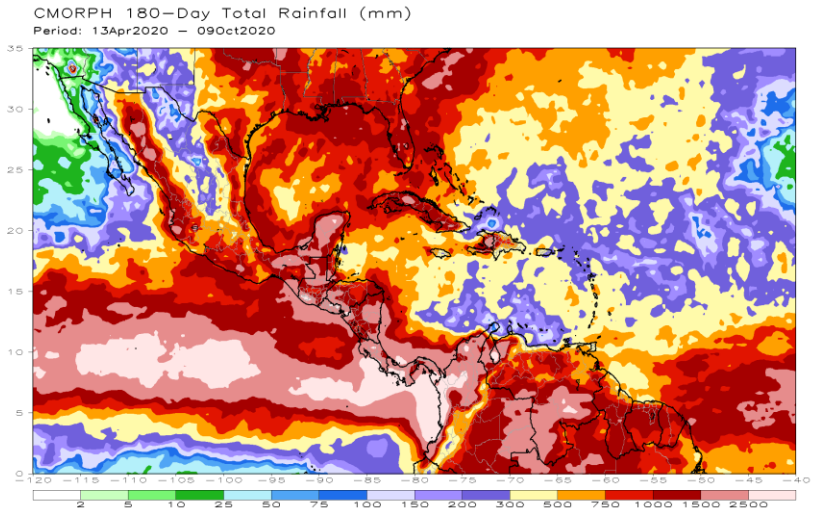
- Highlights
- Recent Evolution and Current Conditions
- NCEP GEFS Forecasts

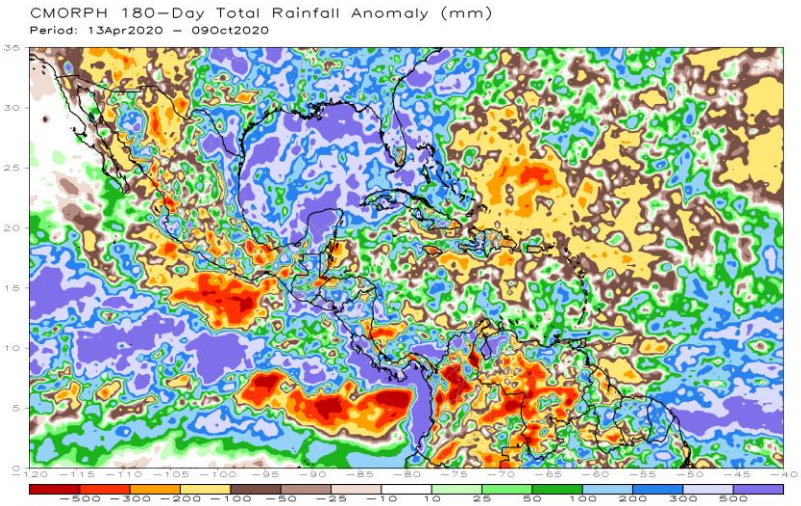
HIGHLIGHTS
LAST 7 DAYS

Local areas in Mexico (Yucatan and Quintana Roo States), southern Guatemala, northern Nicaragua, parts of Costa Rica and Panama registered weekly rainfall amount of more than 150 mm (moisture surpluses of over 100 mm).

Week-1 forecast indicates an increased chance for weekly rainfall to exceed 100 mm over portions of Nicaragua and much of Costa Rica and Panama. Week-2 forecast calls for an increased chance for weekly rainfall to exceed 100 mm over southern Mexico, Costa Rica and Panama.

RAINFALL PATTERNS
LAST 180 DAYS

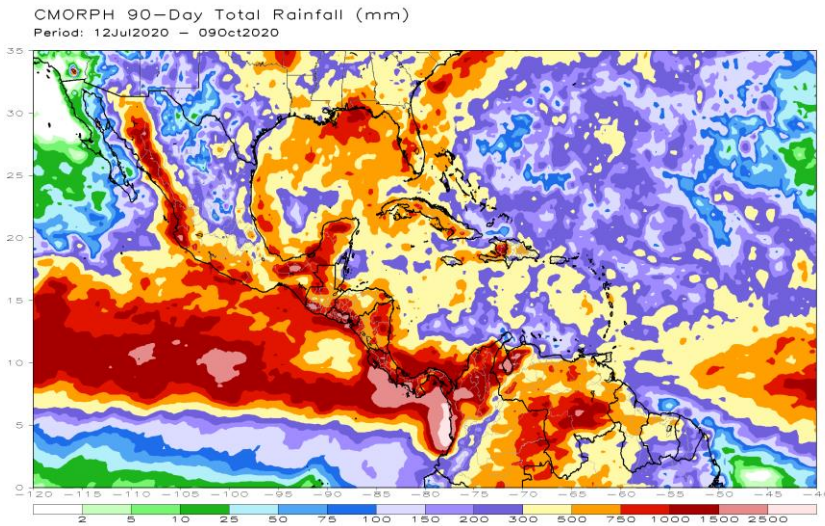


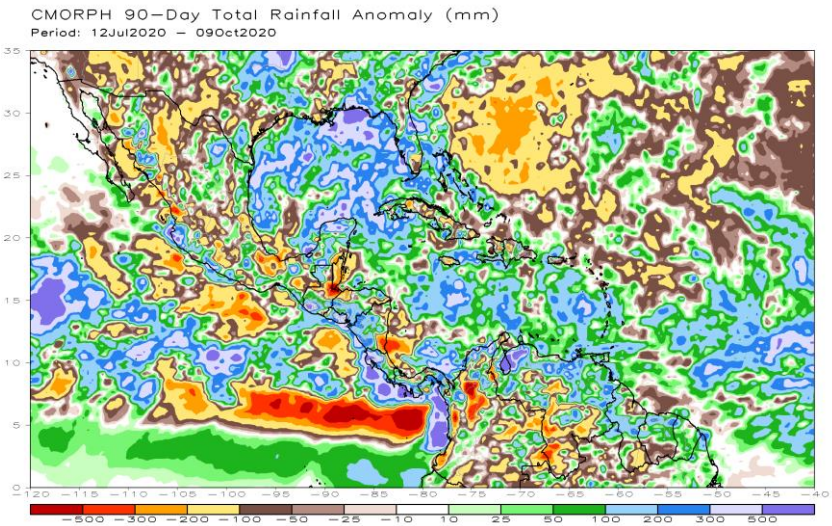


During the past 180 days, moisture surpluses of near or over 500 mm were observed over Mexico (Sonora, Chihuahua, Coahuila, Nuevo Leon, Tamaulipas, Jalisco, Michoacán, Campeche, Yucatan and Quintana Roo States), southwestern Belize, portions of Guatemala, much of El Salvador, southern Honduras, northern Nicaragua, western Costa Rica, parts of Panama, northern and southern Cuba, the northern part of the Bahamas and central Haiti.

Local areas in Mexico (Chihuahua, Sinaloa, Durango, Nayarit, Michoacán, Guerrero, Puebla, Veracruz, Oaxaca and Chiapas States), southern Belize, eastern Guatemala, northwestern Honduras, southeastern Nicaragua, portions of Panama, southern Cuba, central Jamaica, and eastern Dominican Republic experienced below-average rainfall, with rainfall deficits of over 300 mm.

RAINFALL PATTERNS
LAST 90 DAYS

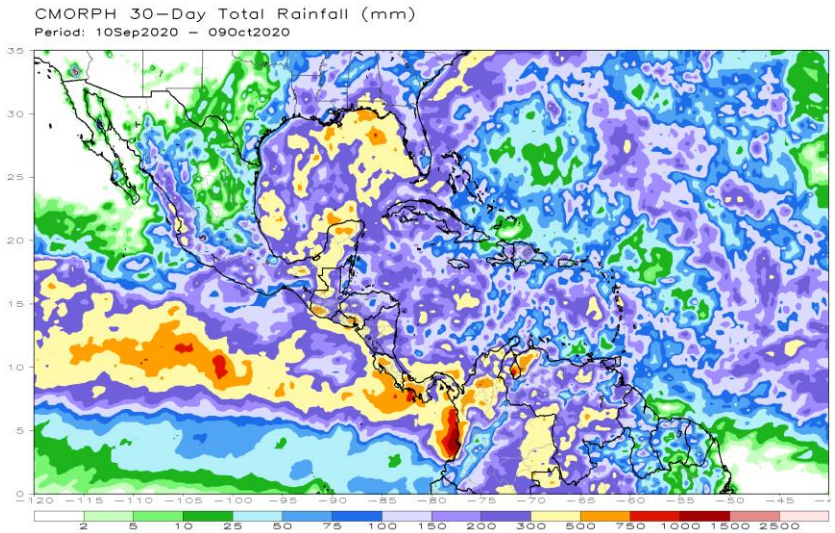


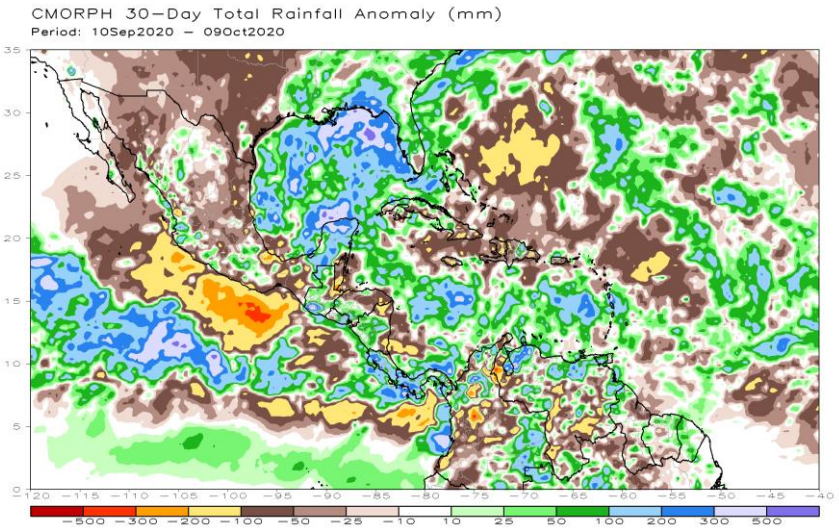


During the past 90 days, above-average rainfall (over 500 mm above the mean) was observed over areas in Mexico (Sonora, Chihuahua, Jalisco and Yucatan States), southern Guatemala, northwestern Costa Rica and local areas along the southern coast of Panama.

Conversely, areas in Mexico (Sinaloa, Durango, Nayarit, Puebla, Veracruz, Oaxaca and Chiapas States), eastern and southern Belize, portions of Guatemala, southeastern Nicaragua and central Haiti experienced below-average rainfall, with rainfall deficits of over 300 mm.

RAINFALL PATTERNS
LAST 30 DAYS

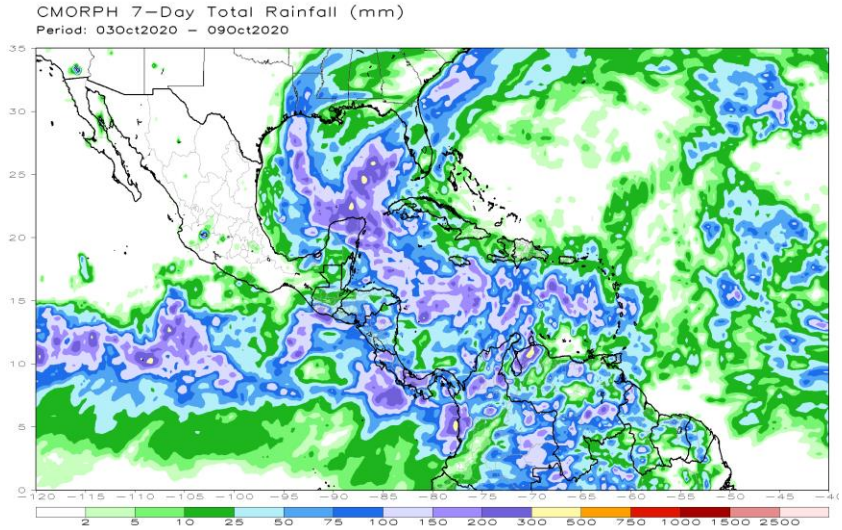


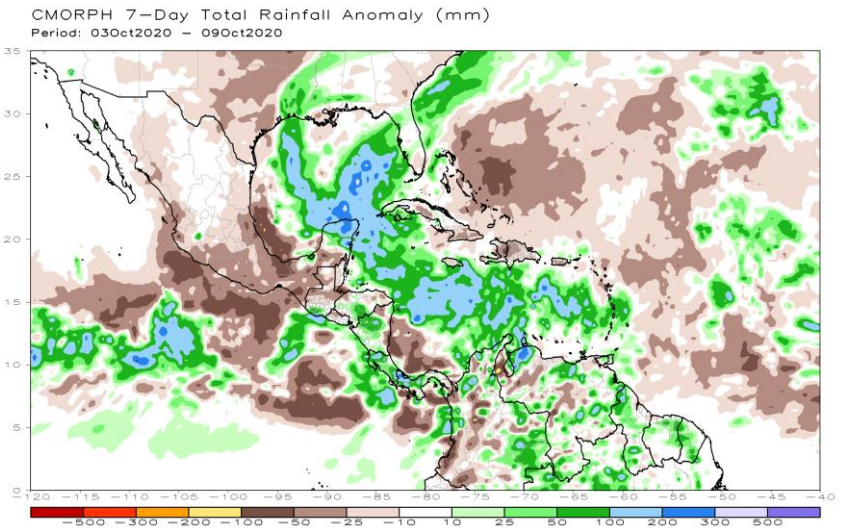


During the past 30 days, rainfall was above average (with moisture surpluses of over 300 mm) over local areas in Mexico (Yucatan State) southern Guatemala, northern Costa Rica, and Panama.

The northern part of Mexico experienced less than 25% of normal rainfall. Southern Cuba, the southern part of the Bahamas and portions of Hispaniola experienced less than 80% of normal rainfall (moisture deficits of over 50 mm).

RAINFALL PATTERNS
LAST 7 DAYS

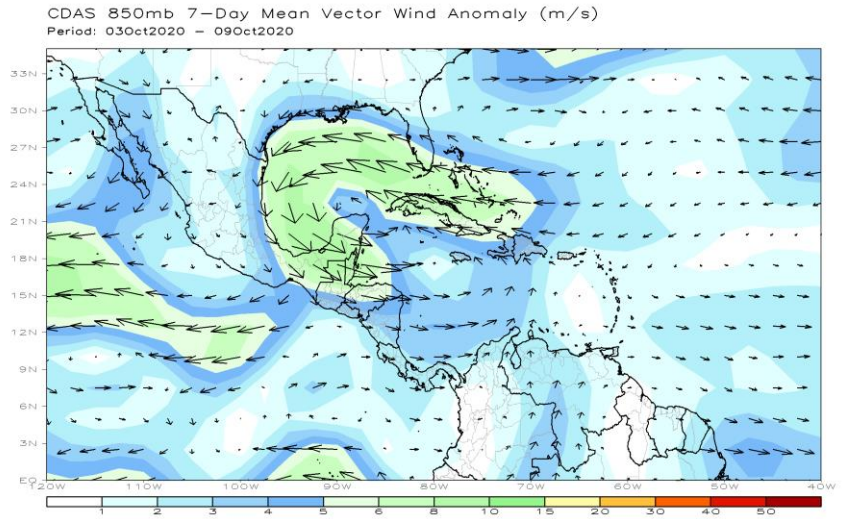


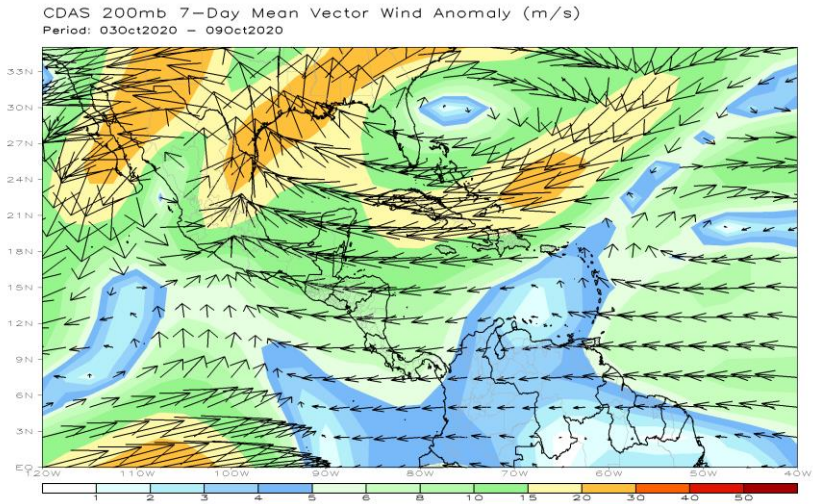


During the past 7 days, weekly rainfall amount of more than 150 mm (moisture surpluses of over 100 mm) were registered in Mexico (Yucatan and Quintana Roo States), southern Guatemala, northern Nicaragua, parts of Costa Rica and Panama.

Conversely, the northern part of Mexico registered weekly rainfall totals of less than 2 mm (less than 1% of normal rainfall). Much of the Greater Antilles experienced rainfall deficits of over than 10 mm (less than 25% of normal rainfall).

ATMOSPHERIC CIRCULATION
LAST 7 DAYS

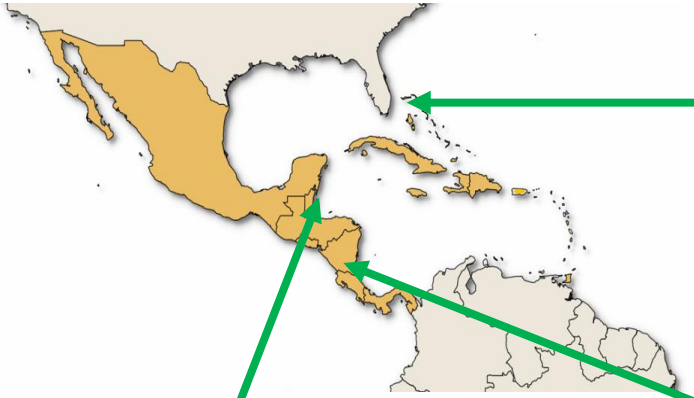


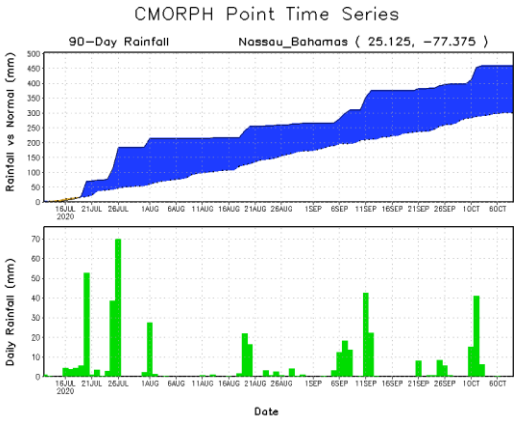


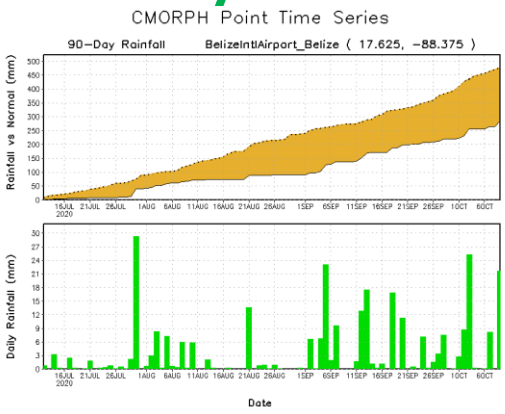
At lower level (850 hPa), a cyclonic circulation is observed over the Gulf of Mexico.

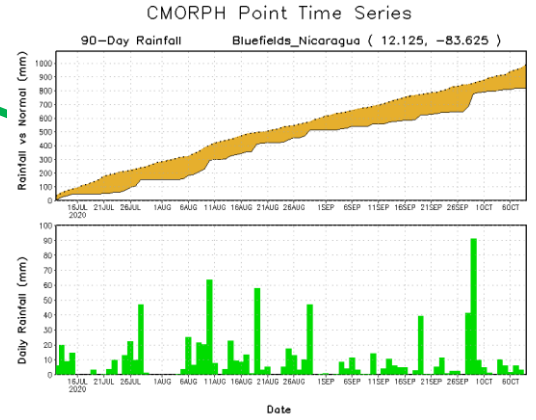
The anomalous winds from this cyclonic circulation may have contributed to enhanced rainfall over Yucatan State (Mexico).

RECENT RAINFALL EVOLUTION LAST 90 DAYS





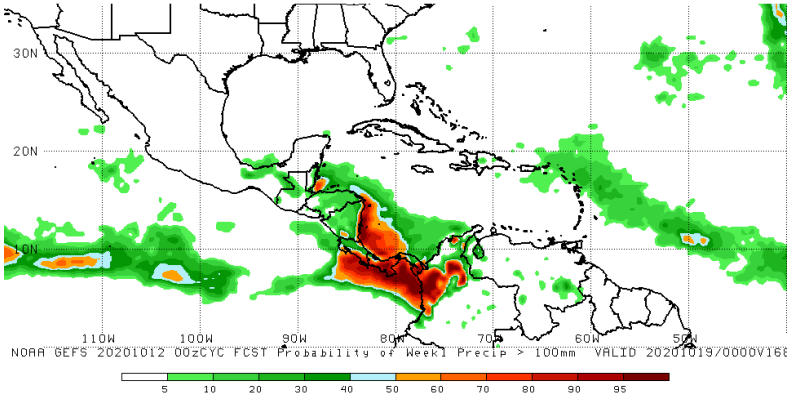




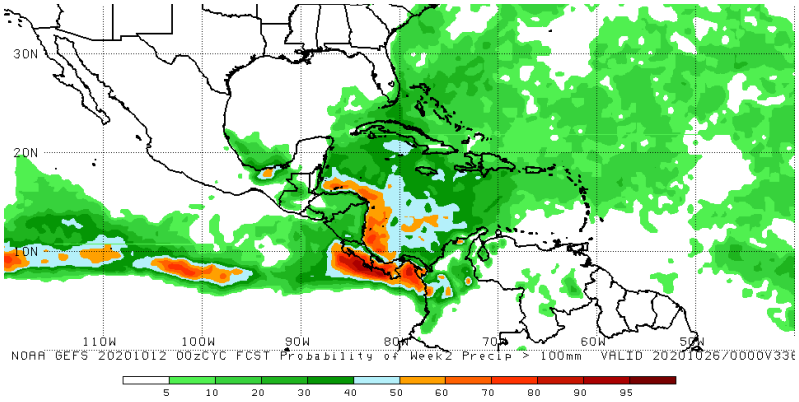
Daily evolution of rainfall over the last 90 days at selected locations highlights moisture surpluses in the northern part of the Bahamas (top right panel). Moisture deficits are evident in northern Belize (bottom left panel) and eastern Nicaragua (bottom right panel) despite recent rainfall.

NON-BIAS CORRECTED PROBABILITY FORECASTS OF PRECIPITATION EXCEEDANCE (PRECIP > 100 MM)

Week-1 forecast
Valid period: 13 – 19 October 2020



Week-2 forecast
Valid period: 20 – 26 October 2020



Week-1 forecast (left panel) indicates an increased chance for weekly rainfall to exceed 100 mm over portions of Nicaragua and much of Costa Rica and Panama.

Week-2 forecast (right panel) calls for an increased chance for weekly rainfall to exceed 100 mm over southern Mexico, Costa Rica and Panama.